### CENTRAL INTELLIGENCE AGENCY

### INFORMATION REPORT

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COUNTRY	Czechoslovakia	REPORT		
SUBJECT	Silon, Artificial Fiber Plant,	DATE DISTR.	26 March 195	
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(FOR KEY SEE REVERSE)

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- 1. The Silon National Enterprise at Plana nad Luznici /492IN-1442E7 was subordinate to the Central Administration for Artificial Fibre Production (Hlavni sprava umela vlakna), a department of the Ministry of Chemical Industry. It produced a Czechoslovak artificial fibre called silon. The chemical structure of silon is similar to that of the German perlon, but its production differs from that of perlon in certain technical details.
- 2. Research on this polyamide fibre was begun by the Bata Works in Zlin (now Gottwaldov) /4912N-174QE/ during World War II under the supervision of Dr. (fnu) Wichtera, Eng. (fnu) Novotny, and Eng. (fnu) Prochaska, who towards the end of the war succeeded in laboratory production of this fibre and gave it the name of winop. After the war several ardent Communists made their way into this group of scientists. Among the Communists was Eng. (fnu) Moravec who by his behavior disgusted the three original scientists, all of them non-Communists, to such a degree that they preferred to leave the Bata concern. Moravec, who assumed leadership in research on the fibre, did not modify its chemical composition, but developed a continuous polymerization process and designed the laboratory equipment necessary for this purpose. The first fibre to be produced by the new method came out in 1946 and received the name of silon. The Communists started a big propaganda campaign boasting that they had invented an artificial fibre better than Dupont's nylon. Governmental circles became very interested in its production and the Bata Works in Zlin were ordered to set up a rather large silon pilot plant. Dr. Ivan Holy, who was at that time General Manager of the Bata concern, assigned this task to the manager of

25 YEAR RE-REVIEW

25X1

SECRET

STATE X ARMY X NAVY X AIR X FBI AEC

25X1

the Bata Machinery Department, Ing. (fnu) SKRABAL, the manager of the Bata Textile Department, Ing. (fnu) HAJEK, and the manager of the Kovosvit National Enterprise (a machinery plant) at Sezimovo Usti /4923N-1442E7, Ing. Josef STEPAN. It was decided that the pilot plant should be erected in the immediate vicinity of Kovosvit; this measure was to ensure cooperation of Kovosvit in equipping the silon plant with machinery and to improve the opportunity for social contacts of the --- chiefly male --- Kovosvit employees, as the new plant was to employ mainly women. Ing. SKRABAL requested me (I was at that time head of the Svit Designing Department in Gottwaldov) to make all necessary plans for the machinery of the new plant.

Preparatory construction work was begun in 1947. The construction of the production hall was started in 1948, and by the end of 1950 onethird of the hall was entirely completed, and the brickwork of the other two-thirds was finished. The necessary equipment was suppl25X1 from Zlin; trial production was launched in January 1951. The remaining two-thirds of the hall were gradually completed and equipped, and full production could be started in mid-1952. equipment is being supplemented currently. All the equipment of the Silon Plant was entirely new; it was delivered by the

following enterprises:

25X1

- a. Svit, National Enterprise, Gottwaldov --- polymerization chambers;
- Kovosvit, National Enterprise, Sezimovo Usti --- chamber-carrying bridges and gearing of pumps for continuous polymerization;
- c. Zbrojovka, National Enterprise, Brno --- spinning gear pumps;
- Svit, National Enterprise, Uhersky Brod 2902N-1739E machines;
- Kovosvit, National Enterprise, Zruc nad Sazavou 4944N-1506E7 --
- Communalized Enterprises of Kolin /5002N-1512E/ --- elutristion machines;
- g. Machinery Works (formerly Zima) at Opocno /5016N-1607E7 --twisting machinery;
- h. Schicht, Usti nad Labem 5040N-1402E7 --- air-conditioning apparatus;
- Svit, National Enterprise, Svit (formerly Batizovce) /4905N-2012E7.
- 4. The following main sections of the plant were participating in silon production: a diluting shop, a polymerization hall (where polymerization chambers are installed), a spinning shop, a twisting shop, an elutriation shop, and a coning shop. The Silon Plant also had a chemical and textile laboratory, a research and operational laboratory, an experimental workshop, a designing department, and a pilot knitting shop of its own.
- 5. Until mid-1952, about 25 metric tons of silon per month were produced. This output has been raised to 42 metric tons per month since July 1952. July 1952 the Silon Plant was ordered to produce yarns of 120 and 250 denier, which most probably will be used in production of tire cords.

# SECRET/SECURITY INFORMATION

25X1

6. The Czechoslovak machine industry was very interested in silon refuse, and since the Spring of 1952 almost all the silon refuse went to this industry. The machine industry stipulated that the material be delivered in the form of flakes. The machine industry processed these flakes, probably using them as an ersatz material for metal --chiefly bronze -- fillings of bearings. In the first half of 1952 the Ministry of Heavy Machinery (Ministerstvo tezkeho strojirenstvi) unexpectedly serzed one-third of the caprolactam output of the Chemical Plant at Zilina /4913N-1844E7. As this fact had not been foreseen in the production plan, the Silon Plant was compelled to restrict production temporarily as a result of the shortage of this raw material.

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- 7. Until the Spring of 1952 the Czechoslovak phonograph industry had been an important consumer of silon refuse, because silon is an ideal material for phonograph records. Such records, however, were most probably destined for export, judging by the fact that records available on the domestic market were of very poor quality.
- 8. Silon was also successfully used in making strings and artificial horsehair for various purposes. The research institute of Svit, National Enterprise, at Gottwaldov set up a small experimental shop which made silon strings and artificial horsehair by extrusion through a nozzle-like calibrated steel wire. This new method brought far better results than that applied by an experimental shop at Zilina, where these items were produced by stretching between rolls. It was intended to move the Svit experimental shop from Gottwaldov to Plana nad Lagnici.

25X1

- 9. Production of artificial polyamide fibres was to be resumed at Jelenia Gera /5054Nel544E/ in Poland. Ing. MORAVEC of Gottwaldov visited Jelenia Gera in T951 to establish cooperation with the Poles; there were no results of this visit, however, so far as the Silon Plant was concerned. In the Spring of 1952, Polish experts paid a visit to the Svit Plant at Gottwaldov; some Czechoslovak experts were to go to Poland to repay this visit but up to July 1952 this trip had not taken place. A polymerization chamber and a spinning-and-stretching machine were put at the Poles' disposal so that they could produce Czechoslovak silon. Most probably, however, the Polewill keep to the production principle of German perlon, which the Germans used to make at Jelenia Gora. Although the Russians had moved this factory to an unknown place in the USSR, a small part of its equipment was left at the spot. The Russians must have moved to Russia the German working staff of the factory, since Czechoslovakia now imports from the USSR solid caprolactam, which the Russians would be unable to produce without the help of German experts.
- 10. It was decided at the beginning of 1952 to increase the output of polyamide fibres to 2,000 metric tons per year. Inasmuch as the silon Plant had always been a pilot plant and its equipment had not been tried out sufficiently, the Ministry of the Chemical Industry took up negotiations with the USSR with the aim of establishing in Czechoslovakia a new plant for production of kapron (the Russian name for perlon) along Russian lines. On the invitation of the Czechoslovak government, about six Russian experts, representatives of several industrial branches, came to Czechoslovakia for a month's stay in May 1952 and paid a visit of several days to the Silon Plant. They were very shabbily dressed and gave a poor personal impression. The Soviets raised objections to the original intention of the Czechoslovak authorities to build a kapron factory in the immediate neighborhood of the Silon Plant. The Soviet experts decided that for strategic reasons the new plant should be built in the eastern part of Czechoslovakia at Humenne /4856N-2155E/. The Chemoprojekt National Enterprise was given instructions to work out the plans on the basis of

# SECRET/SECURITY INFORMATION

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plans to be furn shed by the Soviets. One of the designers from the Silon Plant, Rudolf BUCHVALDEK, was transferred to Chemoprojekt to act as an intermediator between this firm and the Soviet authorities. During their visit to the Silon Plant, the Soviet representatives proved to be very interested in silon production and demanded copies of all production plans and methods. head of the Development and Designing Department requested them to give the Silon Plant a chance to learn something from Soviet experience. The leader of the Soviet delegation got very excited stating that if that were done there would be no safeguard against Soviet designs and plans falling into Western hands. later reprimanded by the plant manager for having endangered the friendly relations between Czechoslovakia and 25X1 the USSR

11. The Silon Plant had about 600 employees; one-sixth of them worked in white collar jobs, the rest in production. About 400 of the employees were women. Gross weekly wages and salaries amounted to the following approximate sums:

Plant manager Chief of operations Chief of Technical Development D	ent. 3,000 Kes
(vedouci vystavby) Cadre office chief Chief accountant Chief of the Designing Departmen Chief of laboratories Machine operators in experiments	2,300 Kes 2,300 Kes 2,500 Kes 2,200 Kes 2,200 Kes
Shop foremen	1,800 Kes max 1,500 Kes
Spinners machine operators Twisting machine operators (women	200 Kes 1,200 Kes 1,000 Kes 700 Kes

Wages and salaries could be increased by so-called premiums which were awarded for outstanding labor efficiency or high quality of products; this scheme, however, which was introduced at the beginning of 1952, was still running on a trial basis. Difficulties in its operation were mainly caused by the fact that each department worked as an independent unit. Since premiums could be granted to individuals only, the fair awarding and distribution of premiums was very difficult.

- 12. Labor morale was very poor; employees did not work more than was necessary to earn their wages. As a result of this attitude, the plant met the targets by only 60% in the Spring of 1952. The bank, once in March 1952 and a second time in June 1952, refused to grant credits for the payment of wages and salaries. In March, representatives of the Silon Plant had to settle the matter with the Ministry of Chemical Industry, and in June they were even compelled to address themselves to Prime Minister Antonin Zapotocky. As a consequence of these troubles the quantitative targets for silon production had to be reduced, a measure which was justified by the fact that the plant was still in a stage of pilot production. Silon output continued to occupy the last but one place in the competition of the Czechoslovak artificial fiber industry.
- 13. Cases of sabotage occurred in the plant from time to time. In early June 1952, the motor of the washing-water circulation system was put out of operation by being unscrewed from its foundation. At the end of the same month a screw-nut was thrown between the blades of a pump of this system. In both cases the culprits could not be discovered. Very frequently failures occurred in the twisting machinery; although this machinery was of a new type, so that sufficient experience in its operation had not yet been acquired, it was obvious that the failures were caused purposely.

SECRET/SECURITY INFORMATION

25X1

- 5 -

	ce list of Silon Plant employees
Jaroslav DOLEZAL: Plant	manager
Emil NEMEC: Former chief	? of operations
Party wanted them to form experts and insisted that force. Despite his object	ended their transfer to the Silon Plant because the Party Cadres there. NEMEC criticized their not being the plant's primary need was for a skilled labor etions all these men were hired. After dismissal from a job at the Artificial Fibres Research Institute in
the Svit National Enterpr Alois DANEK:	ise at Svit.
the Svit National Enterpr Alois DANEK:	ise at Svit.  appointed  NEMEC's discharge.
the Svit National Enterpr Alois DANEK: chief of operations after (fnu) FRIDRICH: Cadre Of	ise at Svit.  appointed  NEMEC's discharge.
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SEC	CRET/SECURITY INFORMATION 25X1
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Stanialay WOMPOWA. Abs.	
Contistav Topiccka: Chief	f of the experimental spinning shop. 25X1
Josef KOLAR: Chief accou	intant.
Ing. (fnu) CHALUPSKY: Ch	nief of the chemical laboratories.
	of the purchase department.
(fnu) BABORSKY: Since mi	d-July 1952, chief of the designing depart-
Josef VALASEK: Chief of	the maintanenes several
, only	one maintenance service.
(fnu) VILDMANN: Chief of	the wage department.
(fnu) LUDBA: Apprentice	education officer.
(fnu) KARASKOVA: Female	clerk of the personnel department.
	Clerk of the construction department
(fnu) CHAREK: Clerk of the	
(fnu) DANKOVA: Wife of A	lois DANEK, clerk of the personnel department, 25
(1114) APRILATOAN: Lemaie	clerk of the cash department 25
Ing. (fnu) NIEDERLE: Cher	mist in the chemical laboratories
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(fnu) CHALUPSKA: Wife of laboratories.	Ing. CHALUPSKY, aid in the chemical 253
Technical clerks in the de	esigning depertment.
(fnu) KETTNER:	25
(fnu) CERMAK:	25
fnu) VESELY	25 25 25 25 25 25 25 25 25 25 25 25 25 2
fnu) HYNEK:	
fnu) MOSNA:	
arel DVORAK:	
fnu) DANA:	
fnu) BISKO:	
fnu) HAVLICEK:	25
fnu) SINKORA	
fnu) DIAGEE	

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Several names of plain workers:

Jakub SEDLACEK: Twisting machines maintenance worker

(fnu) KOHOUTEK: Pumps maintenance worker.

(fnu) KARASEK: Worker employed at the spinning department

25X1
25X1